

TRANSCEIVER FOR A WIRELESS OPTICAL TELECOMMUNICATION SYSTEM

ABSTRACT OF THE DISCLOSURE

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A holographic optical element (HOE) device is mounted in wireless optical telecommunication system transceiver. The HOE device includes a developed emulsion material having an interference pattern recorded thereon, sandwiched between a pair of elements, such as a pair of clear glass plates. In operation, the HOE device uses the recorded interference pattern to diffract received light rays towards an optical processing unit of the system receiver. A transmitter unit can be positioned at least in part behind the HOE device. An opening in the emulsion material allows a light signal transmitted from the transmitter unit to be substantially unaffected by the recorded interference pattern.

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